

What is claimed is:

1. A method for preparing the rubber-reinforced thermoplastic resin characterized in that it comprises

on the basis of 100 weight parts of total monomer  
5 used to prepare graft copolymer,

a) the stage of charging 45 to 65 weight parts of the mixture into a polymerization reactor, comprising 10 to 30 weight parts of a rubber latex having average  
10 particle diameter of 0.08 to 0.16  $\mu\text{m}$  and gel content of 65 to 95 weight % and 15 to 45 weight parts of a rubber latex having average particle diameter of 0.26 to 0.34  $\mu\text{m}$  and gel content of 55 to 85 weight %, 5 to 15 weight parts of aromatic vinyl compound, 1 to 6  
15 weight parts of vinyl cyanide compound, 0.3 to 0.8 weight part of emulsifier, 100 to 150 weight parts of deionized water, and 0.1 to 1.0 weight part of molecular weight control agent, raising the temperature of the polymerization reactor up to 40 to  
20 50°C, starting the polymerization reaction by charging peroxide initiator and activator, and slowly raising the temperature of the polymerization reactor up to 60 to 70°C;

b) the stage, after 30 to 60 minutes since the beginning  
25 of the polymerization and when the monomer conversion

of the polymerization reaction at the stage a) reaches 70 to 90 %, of charging the monomer emulsion comprising 20 to 30 weight parts of aromatic vinyl compound, 5 to 10 weight parts of vinyl cyanide compound, 0.5 to 1.5 weight part of emulsifier, and 20 to 30 weight parts of deionized water, and peroxide initiator into the reactant from said stage a) for 1 to 3 hours continuously, and maintaining the temperature of the polymerization reactor at the range from 70 to 80°C; and  
c) the stage, after completing the charging of the monomer emulsion and peroxide initiator at said stage b), of charging again peroxide initiator and activator at once and polymerizing it at 70 to 80°C for 1 to 2 hours, wherein the monomer conversion is 99 % or more,

and the weight ratio of vinyl cyanide compound to aromatic vinyl compound at said stages a) and b) is from 16/84 to 24/76, and the graft ratio of copolymer grafted on the rubber latex is from 25 to 65 parts.

2. The method for preparing the rubber-reinforced thermoplastic resin according to claim 1, wherein the aromatic vinyl compound comprises one or more compounds

selected from the group consisting of styrene, alpha-methylstyrene, alpha-ethylstyrene, and para-methylstyrene.

3. The method for preparing the rubber-reinforced thermoplastic resin according to claim 1, wherein the vinyl cyanide compound comprises one or more compounds selected from the group consisting of acrylonitrile, methacrylonitrile, and ethacrylonitrile.

10 4. The method for preparing the rubber-reinforced thermoplastic resin according to claim 1, wherein one or more vinyl monomer selected from the group consisting of maleimide, N-methylmaleimide, N-ethylmaleimide, N-propylmaleimide, N-phenylmaleimide, methyl methacrylate, methyl acrylate, butyl acrylate, acrylic acid, and maleic  
15 anhydride is further added at said stage a) or b).

5. The method for preparing the rubber-reinforced thermoplastic resin according to claim 1, wherein the  
20 peroxide initiator comprises one or more compounds selected from the group consisting of an organic peroxide including tertiary-butylhydroperoxide, cumene hydroperoxide, and diisopropylbenzene hydroperoxide, and an inorganic peroxide including potassium persulfate salt and sodium persulfate  
25 salt.

6. The method for preparing the rubber-reinforced thermoplastic resin according to claim 1, wherein the emulsifier comprises one or more compounds selected from the group consisting of alkylaryl sulfonate, alkalimetal alkylsulfate, sulfonated alkylester, fatty acid soap, and alkali salt of rosin acid.

7. A rubber-reinforced thermoplastic resin prepared by one of the methods according to claim 1 to claim 6.

8. A rubber-reinforced thermoplastic resin composition comprising

- 15 a) 20 to 80 weight parts of the rubber-reinforced thermoplastic resin of claim 7; and
- b) 20 to 80 weight parts of the styrenic copolymer of weight-average molecular weight of 80,000 to 200,000.

20 9. The rubber-reinforced thermoplastic resin composition according to claim 8, wherein the styrenic copolymer is acrylonitrile-styrene copolymer having acrylonitrile content of 20 to 35 weight %, acrylonitrile-styrene-alpha-methylstyrene terpolymer having acrylonitrile

25 content of 20 to 35 weight %, alpha-methylstyrene content

of 60 to 70 weight %, and styrene content of 1 to 10 weight %, or a mixture thereof.